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# **ANALYSIS OF RESTRAINT SURVEY**

For the  
**Alabama Department of Transportation**  
Safety Public Relations - Real Time Travel Watch (Phase 2) Project

by

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## **Executive Summary**

The Alabama Department of Transportation (ALDOT) contracted with the University Transportation Center for Alabama (UTCA) to increase motorists' awareness of the magnitude and severity of traffic crashes in Alabama, and to increase knowledge of techniques that can minimize crashes, injuries and fatalities. A comprehensive project was conducted, utilizing multiple public relations approaches to emphasize topics like seatbelt and child restraint use, not driving while impaired, bike safety, work zone safety, and many others.

This report documents one aspect of the project, the evaluation of public attitudes toward seatbelt use, as measured through telephone surveys (over 5000 calls) of targeted audiences. Thanks to this project and many other efforts, belt use went up 8% in Alabama during this period. The survey evaluated two elements of the project - a seatbelt billboard program and a radio spot program - and found generally positive results. But the real strength of the evaluation involved detailed analyses of both the general information obtained during the survey and the demographic characteristics of the respondents.

A good example of the demographic analysis involved responses from individuals who identified themselves as users, sometimes-users, or non-users. Analyses conducted through data mining allowed identification of specific attitudes associated with non-use, and could form the basis of targeted interventions designed to modify those specific attitudes.

The study revealed that different strategies are needed to affect different age groups, males and females, and part-time users vs. hard-core non-users. Awareness of "increased chances of fatality from nonuse" was strongly correlated with belt use, implying that public information and education programs must include this information. Likewise, the analysis found that it is necessary to inform drivers that belt use is the law and that civil penalties can be assessed to increase belt use for some subgroups of drivers. In other words, the public awareness effort must have both a carrot and a stick—knowledge of the severity of non-use is required to affect some groups.

A good way to summarize this evaluation is that it confirmed that the public awareness project had a positive effect on restraint use, but that detailed analysis provided clues that will allow more carefully targeted interventions for continuing efforts in succeeding years.

## **Section 1.0 INTRODUCTION**

### **OVERVIEW**

Few Alabamians recognize the magnitude of pain and loss attributable to traffic crashes. In round numbers, for the past decade there have been about 130,000 crashes, over 1000 fatalities, and almost 50,000 injuries on Alabama roads each year. And the sad fact is that much of this suffering could be alleviated by safer driving habits.

The Alabama Department of Transportation (ALDOT) desired to increase motorists' awareness of the magnitude and severity of traffic crashes in Alabama, and to increase knowledge of techniques to minimize crashes, injuries and fatalities. ALDOT contracted with the University Transportation Center for Alabama (UTCA) at the University of Alabama (UA) to conduct a massive public relations program to improve public awareness and response. UTCA's partners in this effort were Kim&Co, a public relations firm in Montgomery, and the Safe Kids Coalition, located at Children's Hospital in Birmingham, Alabama.

A comprehensive project was conducted, utilizing multiple public relations tools like billboards, public service announcements (PSAs), purchased radio and TV time, clinics, special events, press conferences, appeals to civic and business leaders, and many similar efforts. These programs were directed toward topics like seatbelt and child restraint use, not driving while impaired, bike safety, work zone safety, and many others. Thanks to this project and efforts by other agencies and organizations, belt use went up 8% in Alabama during this period.

### **THE NEED FOR A STUDY**

One of the distressing aspects of attempting to alter public attitudes about safety is the apparent lack of strong guidance about what types of interventions work best in what situations, what mix of media types best affect safety attitudes at given budget levels, how long attitudes last before "refresher" interventions are needed, and similar issues. In other words, there is not a tried and true method that always works to increase seatbelt use, or to deter driving while impaired. Consequently, this project was launched using the best guidance of talented public relations specialists to select the best public relations tools to do the job. And, the results were successful.

This project included one work step to evaluate the results of the public relations effort. It was intended to identify and reinforce the actions that were most successful in positively altering public attitudes toward safety. Given that it is difficult to measure the safety contributions of a single effort when other safety efforts are going on in the background, the evaluation concentrated on attitudes about seatbelt use, as measured through telephone surveys (over 5000 calls) of targeted audiences. The remainder of this document explains how the survey was conducted, reviews the findings, and draws conclusions to help guide future efforts.

## Section 2 ANALYSIS OF RESTRAINT SURVEY

### BACKGROUND

The recent passage of the primary seatbelt law in the summer of 1999 afforded the State of Alabama a unique opportunity to increase its restraint usage. A variety of restraint promotion efforts were sponsored by ALDOT during the calendar year 2000, some of which are summarized below:

<u>Initiation Date</u>	<u>Project Summary</u>
January	McDonalds effort statewide
March	Update of Rest Area Brochure with Motto (Originally distributed in September 1999)
April	Talladega Radio Spots (Previously run Oct. '99 and April '99)
May	Billboards in Most Key Cities throughout the State
September	Radio Spots at Auburn/Alabama games and the Auburn website

For purposes of this project, a survey was conducted over the months of February through December 2000, to assess ongoing restraint promotion projects and to generate information for improving such projects in the future. The survey script is given in Appendix A, and embedded within the script are the frequency distributions of the survey results. For the purposes of this report, responses to the survey are referred to as variables. For example, the respondent's age was the sixth piece of data obtained and was Variable 6 (V006) in the study.

Two of the above projects were amenable to evaluation by the survey mechanism employed: (1) the May billboard initiative, and (2) September radio spot project. While these countermeasures form the center point for the evaluations, it should be recognized that any or all of the above projects could influence the metrics. In addition, other state and national safety promotional efforts (supported by a variety of sponsors) were ongoing during this period and could have influenced the results. This is one of the greatest difficulties in evaluating safety efforts, the commingling and confounding effects of multiple safety efforts makes it virtually impossible to define the exact contributions of any single effort.

This report will continue by presenting time-series analyses for (1) the May billboard project using data from Mobile and Houston Counties, and (2) the September football radio spots using data from Jefferson and Houston Counties. The two sections that follow these will be devoted to general information that was obtained from the survey that will be useful to guide future projects. A final section will summarize the conclusions.

## MAY BILLBOARD PROJECT

The May billboard effort was evaluated by a survey conducted over Mobile and Houston counties in March through October (2000). A total of 2,536 contacts were made in these two counties over this time period. The following presents the monthly distribution of two of the key metrics: proportion claiming that they wore their restraints 100% of the time (V012), and the proportion claiming that they are aware of the increased chances of a fatal crash if restraints are not worn (V023). The monthly figures as well as the number of samples per month are given in Table 1.

Table 1. Summary of Two Key Metrics for Two-County Area

<u>Month (2000)</u>	<u>Sample Size</u>	<u>100% Use</u>	<u>Aware of Danger</u>
March	259	85.5%	81.6%
April	114	82.5%	80.7%
May	488	83.7%	79.6%
June	216	85.1%	83.0%
July	326	90.2%	88.5%
August	518	91.8%	87.3%
September	493	91.5%	88.1%
October	122	91.6%	89.7%

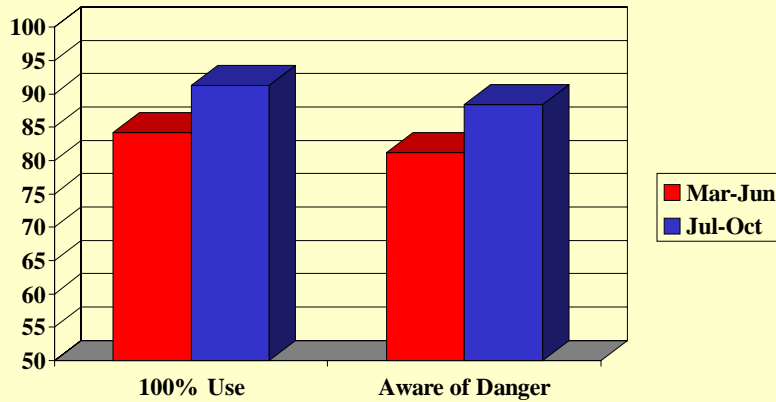
This table shows a clear disparity between the first and last four-month periods, and relatively little change within what can be considered a pre- and post- billboard project time periods. It should be recognized that the May-June time period is just a center point for the billboard projects, and the effects should not be totally attributed to just this intervention. Figure 1 demonstrates graphically the comparison between the average for the before and after periods for these two metrics.

The differences in both of these metrics is statistically significant between the before and after periods, showing improved attitudes with regard to reported 100% use of restraints and the awareness of their life-saving capabilities.

Variable 20 of the survey document (see Appendix) recorded whether the person called was aware of the slogan (“Every Time, Every Trip, Every Day”). There were no statistically significant differences between the before and after period as far as the recognition of the slogan was concerned.



Figure 1. Mobile-Houston Survey of Restraint Attitudes



## SEPTEMBER RADIO SPOTS

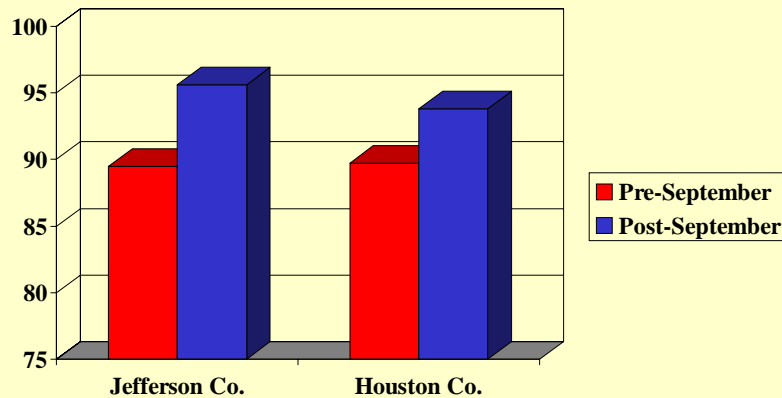
This part of the project was evaluated by a survey conducted over Jefferson and Houston counties in March through October (2000). A total of 2,760 contacts were made in these two counties over this time period. Mobile County could not be used for this evaluation because there were no calls made in that area in the “after” period. Table 2 presents the monthly distribution of the two counties for the only key metric that showed an increase: proportion claiming that they were aware of the primary enforcement provisions of the restraint law (V018). The monthly percentages as well as the number of samples per month are given in the table.

This table shows a clear disparity between the first and last four-month periods, and relatively little change within what can be considered a pre- and post-game announcement project time periods. Figure 1 demonstrates graphically the comparison between the average for the before and after periods for these two counties.

Table 2. Summary of Two County Areas Before and After Game Announcements  
(Awareness of the Primary Enforcement Seatbelt Law)

<u>Month (2000)</u>	<u>JeffCo Sample</u>	<u>% Aware</u>	<u>Houston Co. Sample</u>	<u>% Aware</u>
Feb-March	0	-	259	89.1%
April	0	-	91	90.1%
May	0	-	0	-
June	0	-	7	-
July	359	89.3%	315	92.0%
August	0	-	517	88.4%
<b>Intervention Start</b>				
September	0	-	493	93.8%
October	281	95.3%	122	94.1%
November	260	95.7%	0	-
December	56	96.4%	0	-

Figure 2. Increases in Awareness of Primary Law for Two Sampled Counties



The differences in both of these counties is statistically significant between the before and after periods, showing improved awareness with regard to a knowledge of the passage of the primary enforcement law. Several other variables, however, showed declines between the before and after periods. In particular, those metrics indicating awareness of actual selective enforcement, awareness of the slogan, and actual seatbelt use all showed declines from the before to the after periods.

*General conclusions.* Conclusions can be drawn about the very high correlation of some key indicator metrics with the times at which interventions were made, but care must be used in drawing such conclusions. Remember that there is no way to conclusively tell if these interventions or some other activities throughout the state and the nation brought about the positive results. 44% of respondents who answered that they did not always use restraints thought that the slogan was effective in increasing their use. The percentage of respondents (i.e., those who had heard the slogan and were not already 100% users) favorably affected was about 6.1% of respondents. If this proportion is prorated over an effective (adult) population of Alabama of about 3 million citizens, this would affect about 183,000 persons.

## **GENERAL INFORMATION FROM THE SURVEY**

To this point, the study has concentrated on the specific interventions, and has drawn some general conclusions. A second objective of the survey was to delve further into the data to draw more detailed conclusions. These would be especially useful in guiding future efforts.

In this regard, a wealth of information was generated through “information mining” using the CARE system (<http://care.cs.ua.edu>). These results will now be presented in terms of the issues addressed. In each case the analysis will compare one of the key indicator metrics and examine the demographics that are correlated to that metric. For example, the first metric that considered is Frequency of Seatbelt Use. Two comparisons will be made to mine information using this variable. The first will take the “All the Time” responses and compare with all of the others, while the second will take the “Half the Time or Less” categories and compare them (as a group) with the rest. By looking at all other variables within the database and considering the most significant first, we can arrive at valuable conclusions to guide future efforts. In general, the results will be presented in the order of their significance in correlating with the metric under consideration. The variables will be considered in the order in which their respective questions were asked.

### *V012. Frequency of Seatbelt Use: “all the time” vs. all other results.*

The following presents the statistically significant over-represented findings:

- Females were over-represented in their reported “all the time” use by a little more than 42% above expectation.
- Most of the respondents who reported “all the time” use also reported that their friends used seatbelts (94.5% for this group as opposed to 77.8% for the control).
- The 70-or-older age group was almost double their expectation of seatbelt use, while those that were the most under-represented were (in order of worst first): 15 or under, 19-21, 22-24, and 16-18. Other age groups had no statistically significant differences.
- Radio preference most over-represented for “all the time” users was Gospel/Religious Talk, with a factor about 73% over expectation. The two significantly under-represented radio preferences were (in order of worst first): Classic Rock and Alternative/Metal.
- The most over-represented mode of discovery of the primary law was TV, while the most under-represented was from family or friends. Newspaper, radio and school could not be shown to be significantly different between the test and control subsets.

- The test group indicated an awareness of increased chances of fatality in about 16% higher proportion than the control.
- The test group did most of their driving on city streets and highways at about 23% higher than expected from the control group; Jefferson County was over-represented, Houston County was in the middle and Mobile County was under-represented for those who stated that they used restraints 100% of the time.
- There were no significant differences in the test and control with regard to their recognition of the slogan “Every Time, Every Trip, Every Day” (ETETED), nor in any of the other variables (use of child safety seats, awareness of enforcement, awareness that the primary law had passed).

*V012. Frequency of Seatbelt Use: “half the time or less” vs. all other results.*

This analysis is essentially the opposite of the one given above in that it aggregates all of the respondents who reported “half the time,” “less than half the time,” and “never.” This is the suspected target group for seatbelt countermeasures applications. The following presents the statistically significant over-represented findings:

- “Willingness to Change Habits” was over-represented, with 67.1% indicating willingness while only 12.8% of the others indicated that. While a high “willingness to change” is not desirable on the part of those who are already seatbelt users, this does indicate a high potential for influencing those who are not using their restraints all the time.
- Significantly over-represented reasons for not using seatbelts were: (1) “don’t have a good reason,” which tends to confirm the “willingness to change” finding above, and (2) “not comfortable.” A further drill-down on the “not comfortable” category showed that it was the younger ages of both genders that used this excuse.
- The test group here was quite over-represented in using seatbelts on longer trips as opposed to shorter trips. This would indicate the “every trip” aspect (no matter how far) is one that needs to be pressed.
- A “no” response on “Most Friends Use Seatbelts” was over-represented by over five times its expectation. *The collective influence of the peer group cannot be underestimated.*
- Males were over-represented by a little more than 76% above expectation.
- The 15-24 age groups were collectively almost double their expectation.
- Those who knew about the primary enforcement law found out about it basically from “Family and Friends” (twice the expectation), as opposed to the media or school. *This is quite significant since it appears that the formal programs are not reaching these high-risk individuals.*
- Radio preference was most over-represented by those less apt to wear seatbelts: alternative/metal, classic rock, rap/hip hop. These are the stations that should be targeted for additional PSAs.
- The test group indicated a lack of awareness of “increased chances of fatality” in over twice the proportion as the control group.
- The Mobile County area had an over-representation of about 67% more than expected of the test group as compared to Jefferson and Houston counties.

*V015. Children in Safety Seats: “less than all the time” vs. “all the time.”*

Only 28 (or 4% of respondents) were willing to state that they had children and that they failed to keep them in child safety seats while traveling “all the time.” Those claiming to have children and keeping them in restraints “all the time” numbered 667. This analysis was restricted to a comparison of these two subsets (e.g., only those who claimed to have children). Because of this low sample size, no statistically significant findings could be stated. Additional concentration on child safety seats might be given consideration in subsequent surveys. However, due to the sensitive nature of this issue, the questions would need to be carefully phrased.

*V018. Aware of Primary Law?: “No” vs. all other results.*

This analysis compares those who stated that they were not aware of the primary law with all others. The following presents the statistically significant over-represented findings for those who stated that they were not aware of the primary law:

- A negative response to “Aware of Increased Fatal Chances” was over-represented by over 63%, indicating that many of these individuals need to be made aware of the value of restraints.
- There was a very high correlation with not being aware of “any enforcement,” indicating that this is also a major factor that should be emphasized in all promotional efforts. Public information and education (PI&E) programs need to be balanced between appeals to increased safety and the “it’s the law” approaches.
- Mobile County was over-represented in those not aware; Houston County was neutral; Jefferson County was under-represented.
- None of the other variables could be shown to be significant.

*V020. Aware of Slogan?: “No” vs. all other results.*

This analysis compares those who stated that they were not aware of the “ETETED” slogan with those who affirmed that they were. Of those who responded, 482 (13.8%) responded that they were aware of the slogan, while 2964 (84.9%) stated that they were not aware. The following presents the statistically significant over-represented findings for those who stated that they were not aware of the slogan:

- Surprisingly, it was the relatively older groups who were over-represented in their not being aware of the slogan, namely 70 and over, 60-69 and 40-49, in that order. Those who were most aware of the slogan were (in order) 50-59, 16-18, 22-24 and 25-29. This might be attributed to the ways in which the slogan was communicated and the de facto target groups that were reached by these programs (e.g., the McDonald’s program, the billboards, and other media approaches).
- There was a very high correlation between those who were not aware of the slogan and those who were not aware of increased fatal chances from not wearing their seatbelts (about 80% higher than expected). This might indicate that they are possibly oblivious to all such information.
- Females were particularly over-represented in not being aware of the slogan (over 11% more than expectation). Further analysis showed that they were also correlated with the higher age group respondents. (With the exception of a choice of the target area for the calls, no effort was made to control the demographics of the respondents.)

- None of the other demographic variables could be shown to be significant for this comparison.

*V022. Willingness to Change Habits?: “No” vs. “Yes.”*

This analysis compares those who stated that they were not willing to change their habits with those who stated that they were. Both of these groups are important because we need to know about those who indicate an unwillingness to change, and we also need to know the attributes of those who are willing to change. All of these factors should be included in formulating countermeasure strategies. Of all respondents, 99 indicated that they were unwilling to change, while 275 indicated that they were willing to change. These respondents are limited to only those who were less than “already buckled up all the time.” That is, *we are only sampling those who are deficient in their seatbelt habits*. The following presents the statistically significant results that were found in comparing these two subsets:

- Those who were willing to change indicated a large over-representation in use on longer trips as opposed to local travel. This indicates a pattern of partial seatbelt use when it is deemed necessary. This group needs to be convinced of the value of “ETETED.” Those who are unwilling to change indicate they are not wearing belts on longer trips, which is an indication that they lack a reason for what they are doing.
- The reason for seatbelt non-use that was most over-represented in those who were unwilling to change was “not comfortable.” (A further breakdown by gender showed equal representation of both men and women in this opinion.) Fear of getting trapped, which would seem to be at least a good emotional reason, was held by only 10 of those who were unwilling to change and 9 of those who indicated willingness to change. (This might indicate that even bringing up this factor might be counterproductive to those who do not give this a second thought.) Those who were willing to change admitted that they “don’t have a good reason” for not wearing their seatbelts. This is probably the most difficult “reason” to address.
- The proportion of those who stated that they “never” wear seatbelts was over three times higher in those who were unwilling to change as for those who were willing to change. The other categories of the “Frequency of Seatbelt Use” variable also indicated that those unwilling to change are the hard-core non-users.
- Ages of those unwilling to change (ordered worst first): 50-59, 60-69, 70 or over.
- Ages of those willing to change (ordered best first): 15-18, 25-29, 30-39, and 19-24.
- Radio preference of those unwilling to change was not easily determined (“Other” was the only one significantly over-represented). The radio preference of those who were willing to change (in order of best first): gospel/religious, alternative/metal, top 40/pop, classic rock.
- Jefferson County was over-represented in those unwilling to change; Houston was neutral, while Mobile County was over-represented in those willing to change.

*V023. Aware of Increased Fatal Chances?: “No” vs. “Yes”.*

This analysis compares those who stated that they were not aware of the increased chances of getting killed (lethality) when not wearing a seatbelt against those who responded that they did.

Of all respondents, 2914 indicated that they were aware of the increased chances of getting killed if unrestrained; while 514 indicated that they were not. The following presents the statistically significant results that were found in comparing these two subsets:

- Those who were not aware (of lethality) were over-represented in not being aware of the primary enforcement law.
- Those who were aware of lethality found out about it more often from their family or friends or from the newspaper. Those who were aware of increased lethality were over-represented in learning about the primary enforcement law on radio and TV or at school. This would indicate that the non-print media and school programs tend to give reasons for seatbelt use as opposed to just stating “it’s the law.”
- Those who were unaware of the lethality were over-represented in their radio preference for alternative/heavy metal, while those who were aware tend to listen to country/western.
- Those who are unaware of the lethality were over-represented in both the “more than half” and the “less than half” seatbelt use categories. Those who were aware of it were over-represented in “all the time.” This tends to reinforce lethality as a way to get partial users to increase their use.
- The significantly over-represented reasons given for those who denied knowledge of lethality was: (1) don’t have a good reason, and (2) not comfortable.
- Those denying their knowledge of lethality more often than expected stated that they use seatbelts on longer trips.
- Those denying their knowledge of lethality more often indicated their willingness to change their habits. This would be an indication that some convincing methods of conveying the issue of lethality would have a positive effect.
- Males were over-represented in being unaware of lethality by over 21%.
- The only significantly over-represented “unaware” age group were those 15 and under.
- Mobile County was significantly over-represented in those who denied knowledge of lethality; Jefferson County was neutral, and Houston County was under-represented.
- Those stating unawareness of lethality were over-represented in not being aware of the “ETETED” slogan, as well as being unaware of the passage of the primary enforcement law.
- Those stating unawareness of lethality were over-represented in their friends not using seatbelts.

## **DEMOGRAPHIC VARIABLES**

The analyses above generally examined demographic variables to explain differences in the key indicator variables. Some of the demographic variables did not show too many significant differences (e.g., type roadway where most driving was performed). To mine more information from them, comparisons were made within these, and are presented in this section.

### *V008. Age: 21 or less vs. all others*

This analysis compares the respondents who were 21 years old or less with the rest of the respondents. This will be useful for countermeasure development directed specifically at young

drivers. The numbers in these age groups were: 15 or under: 124; 16-18: 162; and 19-21: 110, for a total in this group of 396. The following presents the statistically significant results that were found in comparing these with all older respondents:

- Radio preferences of this age group, as expected, are rap/hip hop, alternative/metal, and Top 40/Pop.
- Over-represented ways of finding out about the primary enforcement law included (in order) family or friends and school. They were also significantly over-represented (by 60% more than expected) in not being aware of the primary law. The under-represented discovery media were television and newspaper.
- This group had about six times the expected proportion of negative responses to the question: do most of your friends use seatbelts? *It is quite clear that this age group must be motivated collectively.*
- Males were over-represented in this age group; there were 176 males and 219 females in this age group as opposed to 995 males and 2082 females outside of this age group.
- This age group was over-represented in their willingness to change their habits (by over 2.7 times the expected value), which would seem to be a very favorable characteristic.
- The most over-represented reason for not using seatbelts was that they were not comfortable (over four times the expectation for this response). This should definitely be one of the issues addressed by countermeasures – perhaps by demonstrating methods of improving seatbelt comfort.
- This group had over twice its expectation of their reporting using seatbelts on longer trips.
- This group had over twice its expectation for seatbelt use “more than half the time;” however, it was under-represented in their reported usage “all the time,” and only five respondents said “never.” Clearly there is high potential for getting this group to increase their usage from part to all the time.
- This group was over-represented in their belief that the ET, ET, ED slogan was effective (their percentage with this response *for those who had heard the slogan* was 70.3% as opposed to 52.7% for the older age group).
- This age group was over-represented (by about 56%) in their proportion that was not aware of the passage of the primary enforcement law.

#### V008. Age: 22-49 vs. all others

This analysis compares the respondents who were 22-49 years old with the rest of the respondents. This will be useful for countermeasure development directed specifically at drivers in this mid-range category. The numbers in these age groups were: 22-24: 163; 25-29: 211; 30-39: 515, and 40-49: 561 for a total in this group of 1,460. The following presents the statistically significant results that were found in comparing these with all respondents of the older and younger age groups, collectively:

- Radio preferences of this age group are classic rock, top 40/pop and rap/hip hop.
- The only significantly over-represented way of finding out about the primary enforcement law was via TV. The only under-represented discovery media was newspaper.



- The only significantly over-represented reason for not using seatbelts was that they “Don’t have a good reason.” This implies that this age group recognizes the facts and is not making excuses for their lack of restraint use.
- Since this group was an average between the younger and older, they tended to level out the radical differences between these other groups, and no other factors were found to be significant.

#### *V008. Age: 50 or older vs. all others*

This analysis compares the respondents who were 50 years old or more with the rest of the respondents. This will be useful for countermeasure development directed specifically at older drivers. The numbers in these age groups were: 50-59: 543; 60-69: 490; and 70 or over: 575, for a total in this group of 1,608. The following presents the statistically significant results that were found in comparing these with all younger respondents:

- Radio preference of this age group, as expected, is gospel/religious talk, country/western, easy listening, and public radio.
- Over-represented ways of finding out about the primary enforcement law included (in order) newspaper, television and radio. The most under-represented discovery media was family and friends.
- This group was over-represented in their seatbelt use, and the various reasons given were not statistically significant in comparison to the rest. The only one with greater than 20 responses was “not comfortable” but even this category was under-represented in comparisons to the younger age group.
- Females were over-represented in this subset, but only by about 8%.
- This subset tended to respond that most of their friends used seatbelts. This accounted for 95% of the responses.
- The older subset was over-represented in doing most of their driving on country roads and rural areas (over 64% more than expected).
- This group was particularly under-represented in the recognition of the ET, ET, ED slogan.

#### *V009. Males vs. Females*

This analysis compares the male respondents against female respondents. Significant differences exist, and consideration should be given to designing countermeasures that are gender specific. The gender breakdown is: male: 1171; female: 2301. The following presents the statistically significant results that were found:

- Male radio preference: country/western, classic rock, rap/hip hop; female radio preference: gospel/religious talk, easy listening, top 40 pop. Further analysis of the gospel/religious talk group found that they were in the older age group.
- Females were more apt to state that they used their seatbelt “all the time.” Males were over-represented in all other categories.
- Females were over-represented in city driving, while males were over-represented in the “half and half” category.
- Females were more apt to have discovered the primary enforcement law by TV.

- Males were over-represented in the 15 or under age, while females were over-represented in the 70 or over category; none of the other categories had significant differences.
- Males had about 78% higher than females in their proportion of negative responses to the question: do most of your friends use seatbelts?
- Males were about 30% higher than expected in their response that they were not aware of the chances of being killed while unrestrained.
- Females were over-represented in the Mobile County sample, which was the only area with gender over-representation.
- Males tended to be more aware of the slogan by almost 30% more than females.

#### *V011. Most Driving on ...: Rural vs. Urban*

This analysis compares those who stated that they did most of their driving on rural roads against those who responded that they did most on urban roads. Of all respondents, 243 indicated rural, 1807 indicated urban, and 1409 indicated half and half. This latter group was excluded from this comparison. The following presents the statistically significant results that were found in comparing these two subsets:

- Rural drivers preferred country/western and classic rock; urban preferred rap/hip hop, top 40 pop and easy listening.
- Houston County surveys were over-represented in rural; Jefferson County was neutral, while Mobile County was over-represented in urban respondents.
- Rural respondents were over-represented in the higher age groups and males.
- Rural respondents discovered the primary law on TV, while urban respondents were more affected by newspapers.
- Those in the urban areas tended to be more aware of enforcement of the seatbelt laws.

#### *V016. Most Friends Use Seatbelts? No vs. Yes.*

This analysis compares those who stated that most of their friends did not use seatbelts against those who responded that they did. Of all respondents, 3198 indicated “yes,” while 252 (7%) indicated “no.” The following presents the statistically significant results that were found in comparing these two subsets:

- Those whose peer group did not use seatbelts were in the younger age groups, especially 16-24. The age groups from 40 and above tended to have peer groups who used seatbelts.
- This group (with peer group nonuse) was highly over-represented in using seatbelts less than 100% of the time.
- This group most often “did not have a good reason” for non-use, and also stated that is was “not comfortable.”
- They tended to use seatbelts on longer trips.
- Their radio preference was rap/hip hop and alternative metal. Those who had peer groups who were users tended to prefer country/western, easy listening and gospel/religious.
- Surprisingly, those whose friends do not use seatbelts tended to learn about the primary law through family and friends, as opposed to TV for those who do.

- Those without belt-using peer groups tended to be male (over-represented by over 45% more than expected).
- Those without belt-using peer groups tended not to be aware of the increase in fatal chances if not restrained.

### **Section 3.0**

## **CONCLUSIONS**

There are three categories of conclusions that will be presented, with regard to: (1) the May billboard project, (2) September radio spots, and (3) general information from information mining over selected key indicators and demographic factors.

### **MAY BILLBOARDS**

While there is no way to definitively link the May billboard project to the recorded gains in respondent attitude (due to the commingling effects of other efforts, as explained earlier), there is little doubt that it contributed to the overall recognition of the primary enforcement law and, in turn, general restraint use. The following are conclusions from this project and qualifiers follow:

- There were statistically significant improvements in two metrics before and after the May billboard project: those stating that they used their seatbelts “all the time,” and those stating that they were aware of greater danger of fatality.
- There were not significant differences between months *within* either the before or the after time periods, indicating that the billboard project (or it along with some other factors) caused the differences observed at this time.
- While the billboard project could certainly have had an impact, there was a lack of any improved recognition of the slogan at this point, so there is no way to link the improvement in the other statistics with the billboard or other campaigns that used the slogan.

### **SEPTEMBER RADIO SPOTS**

Conclusions with regard to the September radio spots before, during and after the Auburn and the Alabama football games should also be qualified as described above. The following summarizes these conclusions:

- Statistically significant increases in the awareness of the presence of the primary enforcement law were observed in both Jefferson and Houston counties.
- This was the only metric for which a statistically significant improvement could be observed.
- Some metrics for which there should have been improvements actually declined, including the awareness of selective enforcement, awareness of the slogan, and actual perception of seatbelt use.

### **STRATEGIES FOR THE FUTURE**

The major value that can be obtained from this study is in improving future countermeasure strategies. Wide ranges of information mining runs were conducted for this purpose over the key impact metrics. The following are the key conclusions that should impact countermeasure development:

- Different countermeasure strategies need to be developed for different age groups, male and female, and part-time users vs. hard-core non-users. Countermeasures that are

developed should specify which of these eight groups is being addressed and the reason for that approach. Detailed information by age and gender are discussed above with regard to V008 and V009.

- Young people, and especially young males, need to be motivated *as a group* as opposed to receiving individual training. In this regard, “family and friends” cannot be underestimated as both information carriers and motivators. See also the discussion of V016.
- Particular target groups, i.e., those reporting less seatbelt use, were the younger age groups and males.
- Target radio stations for the most critical groups: classic rock, alternative/metal, rap/hip hop.
- Target media for the most critical groups: radio, TV and schools, although media was found to be far less influential than the influence of peer group. (This would not preclude some program of *collectively* influencing the entire peer group, although this is not the objective of most current PI&E projects.)
- Awareness of “increased chances of fatality from non-use” is strongly correlated with reported seatbelt use, indicating that this could be an important educational factor. For specifics on this, see the discussion of V023.
- The following factors should be addressed or otherwise integrated into any motivation or educational efforts:
  - Need to defeat the perception of discomfort with seatbelt use on the part of younger drivers,
  - The importance of using restraints *all the time* as opposed to just longer trips (a factor that seems to be countered by an increased awareness of the lethality of not being restrained, which in turn, appears to be something that is impressed by group as opposed to individual motivation),
  - The fact that *it’s the law*, and that civil penalties that might be assessed,
  - The fact that selective enforcement to enforce the primary law is being conducted,
  - The *proven* increased danger, to the point where some insurance companies have written conditions that release them from liability if there is no restraint usage,
  - The need to develop some type of stigma associated with non-use on the part of young people in order to motivate them as a group.
- A factor that should not be considered since it appears to be a non-issue is that of “getting trapped.” We surmise that bringing this subject up might do more harm than good in that so few indicated it to be a reason for non-use. Teachers and other motivators should be trained to only handle this in reaction to its being brought up by others, and in this case the point should be made that restraints keeping the passenger from being injured would enable them to have the capacity to escape. (There are plenty of factual reasons to dismiss the “getting trapped” excuse, such as the much-higher percentage of fatalities caused by people being expelled from the vehicle.)
- The formal coupling of PI&E with enforcement programs would seem to provide additional reinforcement. Stating “it’s the law” is not as effective as being able to detail specific enforcement efforts that are currently being implemented.

## **Section 4.0 SUMMARY**

The general findings of this survey are positive in that they acknowledge positive movement in seatbelt use and in attitudes toward use. Although it is impossible to pinpoint the exact reason for the improvement in survey respondent's attitudes (as explained earlier), there is little doubt that the efforts of this safety public awareness project contributed to the increased recognition of the primary enforcement law and, in turn, general restraint use.

A reasonable way to look at this finding is that it is a good start. Intensive, targeted work is needed to improve the rate further, and to retain that improvement. The detailed findings from this survey of public attitudes in Alabama have not been available previously, and offer a strong basis to continue public awareness programs and to maximize their results.

## APPENDIX A

### PRIMARY RESTRAINT LAW TELEPHONE SURVEY SCRIPT

#### INTRODUCTION TO CALLERS

The primary purpose of this survey is to determine the effectiveness of several selective enforcement (SE) and public information and education (PI&E) programs that will soon be conducted in Alabama to promote the implementation of the recently-passed primary restraint law. These programs will be run throughout the year and targeted at those areas that have the highest potential for increased restraint usage. This survey also has two secondary purposes: (1) countermeasure focus and improvement, and (2) education. However, this last objective is strictly a by-product of the survey itself.

#### REMINDER TO THE CALLERS

You are representing The University of Alabama and the Alabama Department of Transportation in this research project. It is very important that you do not offend anyone, since they *will* complain to our sponsors. Do not be *preachy*, intimidate or demean the persons called (the *subjects*) in any way. This will not only cause antagonism, but it will decrease the chances of your getting accurate information from them. The overall strategy is to start by getting the subject's cooperation (or early termination of the call). It is OK to have fun and try to get the subjects to enjoy the calls, but be sure not to do anything to insult or intimidate them. Please avoid any humor that people could take in a negative way – some people just do not have a sense of humor.

Once a rapport with the subject is attained, a number of easy, non-controversial questions of a demographic nature will be asked. The last few questions are somewhat more difficult, and they are put last to keep from biasing the other answers.

It is important that the subject does not feel that you are *reading* the questions. Use a *conversational tone*, as you talk to the subject, and rephrase the questions in your own words. Try to build confidence in the subjects so that their responses will be as accurate as possible.

Any age that will give responsible responses are acceptable. The subjects do not have to be drivers.

#### NO CALL LIST

This is very important. Under the Federal telecommunications acts, if a subject should state at any time that they do not ever wish to be called again, you must take their number down so that we are sure that we never call them again. These numbers will go into a database and before we call a number it will be checked to assure that we are compliant with the no call rulings.

1. Phone number

2. County Name \_\_\_\_\_ County Code \_\_\_\_\_

3. City Name \_\_\_\_\_ City Code \_\_\_\_\_

4.      Caller Name \_\_\_\_\_ Caller Code \_\_\_\_\_



***We are not selling anything or asking for contributions; we just would like your opinion on some things.***

**Do you have a few minutes now to answer a few questions or would it be more convenient to call back later? The survey will only take about five minutes.**

- A1.    5.1        Yes  
      5.2        No

[If “CALL BACK LATER,” use your judgment as to whether it is worth calling back or not. If so, put form in “pending” stack; if not, check No above.]

*[If ANSWERING MACHINE/VOICE MAIL: do not leave message, recycle the number by placing form in “pending” stack.]*

*[If “DO NOT CALL BACK” (at any time during the call): “Thank you. Goodbye.” [note by checking above and put form in “no call” stack.]*

*[If REFUSE TO RESPOND: “Thank you for your time.” Enter No and submit form.]*

[If subject should terminate call before normal completion for *any* reason, entry A1 will be No.]

- Q2.    Your number was picked from a random selection of numbers from the phone book. We do not know your name, and we are prohibited by policy from identifying you, so please don’t give me your name.**

**We just need a general age category. It does not have to be exact.** [Caller: to speed things up, don’t just enumerate the ranges. Start by asking: are you under 30? and then zero in on it.]

- A2.    6.1        124        15 or under  
      6.2        162        16-18  
      6.3        110        19-21  
      6.4        163        22-24  
      6.5        211        25-29  
      6.6        515        30-39  
      6.7        561        40-49  
      6.8        543        50-59  
      6.9        490        60-69  
      6.10      575        70 or over  
      6.11      23        Refused to give age but still wanted to participate  
      Null      15

[Note: any age group that gives intelligent responses are acceptable. This will generally be down to ages as low as 8 or 9. However, callers should use their judgment and ask for

parents in cases where reasonable responses are not being obtained or expected due to age.]

**Q3.** [No question. Caller enter gender.]

A3. 7.1 1171 Male  
7.2 2301 Female  
Null 20

**Q4. What type of radio do you listen to?**

A4. 8.1 325 Top 40/Pop  
8.2 793 Country/Western  
8.3 225 Rap/Hip Hop  
8.4 295 Classic Rock  
8.5 357 Easy Listening  
8.6 153 Alternative/Metal  
8.7 57 Talk  
8.8 621 Gospel/Religious Talk  
8.9 91 Public Radio  
8.10 547 Other  
Null 28

**Q5. Do you do most of your driving/riding on ...**

A5. 9.1 1807 City Streets and Highways  
9.2 1409 About half and half  
9.3 243 Country Roads and Rural Highways  
Null 33

**Q6. How frequently do you wear your seat belt?**

A6. 10.1 3079 All the time  
10.2 223 More than half the time  
10.3 65 About half the time  
10.4 64 Less than half the time  
10.5 24 Never

**Q7.** [If A6 is “All the time,” mark last entry in A7 and A8 and go on to Q9.

If A6 is *not* “All the time,” begin suggesting possible reasons for those times that the subject does not buckle up all the time, and put down the one that is most important to them. Be sure to read them all before getting the subject’s “final answer.”]

**Is this because you feel it is ...**

A7 11.1 43 Inconvenient

11.2	83	Not comfortable
11.3	20	Fear of getting trapped in a wreck
11.4	20	Waste of time to buckle up
11.5	209	Don't have a good reason
11.6	3079	Answer to A6 was "All the time"
Null	38	

**Q8. Do you tend to wear seat belts more on longer trips?**

A8.	12.1	297	Yes
	12.2	78	No
	12.3	3079	No, because wears them all the time (A6 = "All the time")
	Null	38	

**Q9. Are there children in your family? If so, do they typically ride in a child safety seat?**

A9.	13.1	2758	No children in family
	13.2	667	All the time
	13.3	11	More than half the time
	13.4	4	About half the time
	13.5	1	Less than half the time
	13.6	12	Never
	Null	39	

**Q10. Do most of your friends "buckle up?"**

A10.	14.1	3198	Yes
	14.2	252	No
	Null	42	

**Q11. Are you aware that a police officer can give you a ticket for not wearing a seat belt?**

A11.	15.1	3406	Yes
	15.2	42	No
	Null	44	

[Note to caller: do not be judgmental at all. If they say "no" you might state: "That's OK, a lot of people that we call don't know about it since it just recently passed." Above all, do not preach to or try to correct the subject. It will bias the rest of the data.]

**Q12. Do you know that Alabama recently passed a *Primary* Seat Belt law?**

[If the subject asks "What is that?" just respond that: "It is the law that enables the police to give tickets for not wearing seatbelts without there being any *other* offense."]

A12.	16.1	3145	Yes
------	------	------	-----

16.2	304	No
Null	43	

**Q13. [If A12 = No, mark the last entry in A13; Ask only if A12 = Yes.]**

**How did you find out about the Primary Seat Belt law?**

A13.	17.1	122	Radio
	17.2	1611	Television
	17.3	31	School
	17.4	464	Family or Friends
	17.5	719	Newspaper
	17.6	191	Other
	17.7	309	Was not aware of law (A12 = No)
	Null	45	

**Q14. Have you heard the slogan “Every Time, Every Trip, Every Day?”**

[If they ask what it is, mark “no” and tell them: “It is a combination of enforcement and public information and education to get people to buckle up.”]

A14.	18.1	482	Yes
	18.2	2964	No
	Null	46	

**Q15. [If A14 = No, mark the last entry and go to Q16; Ask only if A12 = Yes.]**

**Were you more inclined to wear your seat belt after seeing or hearing the “Every Time, Every Trip, Every Day” program.**

A15.	19.1	211	Yes
	19.2	268	No
	19.3	2967	A14 = No; Did not hear about it.
	Null	46	

**We are just about finished; just a couple more quick questions ...**

**Q16. [If A6 = “All the time” then mark the last entry and go to Q17.]**

**Do you think you would be willing to change your seat-belt wearing habits?**

A16.	20.1	275	Yes
	20.2	99	No
	20.3	2967	No – already buckled up all the time (A6 = “All the time”)
	Null	39	

**Q17. Do you realize that your chances of getting killed in a car accident are about 5 times greater if you don't wear your seat belt?**

A17. 21.1 2914 Yes  
21.2 514 No  
Null 64

**Q18. Open Ended: enter any unsolicited comments on a separate sheet.**

**Closure. I want to thank you so much for being willing to help me with this research project. Would you like the number to call to get free copies of our Accident Facts book? That number is 205-348-6999.**

[If they trust you to give you their address for that now, OK. However, do not solicit or suggest this, since we are supposed to keep the responses anonymous. If they do give you the address be sure you place it on a separate list – DO NOT enter it on the form.]

## FREQUENTLY ASKED QUESTIONS (FAQS)

Do not discourage questions – this is part of your building a rapport with the subject.

The following are some questions that we anticipate you might be asked:

1. *Who is your supervisor?* Carol Whatley; her number is 205-348-6999.
2. *Where can I get more information?* Call Carol at 205-348-6999 or check if they have e-mail, and if so, [cwhatley@cs.ua.edu](mailto:cwhatley@cs.ua.edu) -- ask for the **Accident Facts Book**.
3. *If I call, won't that identify me for this poll?* No. We get lots of calls for the Accident Facts Book that are unrelated to the poll, and we are polling hundreds and hundreds of people, so there is no way that your answers can be tied to you.
4. *Which campus are you with?* Tuscaloosa campus.
5. *What department of the University are you with?* It is in the College of Engineering, and the department is the University Transportation Center for Alabama.
6. *Who is the Director of the University Transportation Center?* Dr. Dan Turner.
7. *Questions that you cannot handle:* I'm sorry, I do not know the answer to that. Let me give you Carol Whatley's number and she can help you. It is 205-348-6999.